REMARKS

Claims 1, 17-18, 36, 47, 90, 107-110 have been amended. Claims 2, 46, 99, 106, and 111 have been canceled. No new claims have been added. Claims 1, 3-45, 47-98, 100-105, 107-110, and 112-127 are pending.

The title stands objected to. The title has been amended. The Examiner is requested to approve the new title and withdraw the objection to the title.

Applicants' representative is grateful for the allowance of claims 112-127 and the indication of allowable subject matter in claims 2, 17-35, 46-63, 69-84, 77-79, 84-85, 87, 95, 99-100, and 107-109.

Claim 2 has been canceled as its former limitations have been incorporated into claim 1. Claim 3 has been amended to depend directly from claim 1. Claims 17-18 has been rewritten as an independent claim. Accordingly, claims 1 and 3-35 are now believed to be allowable.

Claim 46 has been canceled and its limitations incorporated into claim 36. Claim 47 has been rewritten as an independent claim. Accordingly, claims 36-45 and 47-63 are now believed to be allowable.

Claim 99 has been canceled and its former limitations incorporated into claim 90. Accordingly, claims 90-98 and 100 are now believed to be allowable.

Claim 106 has been canceled and each of claims 107-109 have been rewritten as independent claims, incorporating the limitations formerly found in claim 106. Accordingly, claims 107-109 are now believed to be allowable.

Claims 1, 3-16, 36-45, 64-68, 75-76, 80-83, 86, 88-94, 96-98, 101-106, and 110-111 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Werthein (U.S. Patent No. 6,662,260) and Neal (U.S. Patent No. 6,338,107). This rejection is respectfully traversed.

Claims 64-65 and 101 recite, *inter alia*, "... said second bus segment is disconnected from said first bus segment." Claim 110 recites, *inter alia*, "wherein when said data passing is not selected said switching circuit disconnects said first bus segment from said second bus segment to permit point-to-point data communications using one of said first and second bus segments."

Wertheim discloses an electronic circuit which perform dynamic bus partitioning in order to reduce power consumption. Column 4, lines 10-54; Abstract. Wertheim is directed to very wide buses located within a high speed processing chip. These wide buses are driven at high speed. Due to parasitic capacitance significant power is consumed. Wertheim recognizes that most bus transactions are directed between two devices on the bus and utilizes a set of switches to partition the bus such that the entire bus does not need to be driven in order to permit the two devices to communicate. This reduces the power consumption of the bus transaction. As noted in the Office Action, Wertheim does not teach or suggest the above recited limitations of the claims 64, 65, and 101.

Neal discloses a method and apparatus of attaching a greater number of peripheral devices to a computer system having a PCI bus. The specification for the PCI bus permit only a limited amount of bus loading, thereby limiting the total number of peripheral devices which can be attached to the bus. Neal discloses that switches (Fig. 3, 302 ... 302N) can be used to electrically coupled and decouple slots from the PCI bus.

The Office Action alleges that it would have been obvious to combine the teachings of Wertheim and Neal to form a improved computer system having an expansion bus which allows the addition of peripheral devices to the system. It is respectfully asserted that this conclusion is in error. Wertheim partitions an internal, wide, and high speed bus, to limit parasitic capacitance, and for the purposes of reducing power consumption. Neal dynamically switches different sets of bus peripherals onto a PCI bus to couple more PCI devices onto a PCI bus than normally permitted by the maximum loading specification of the PCI bus. The combination proposed by the Office Action would not be obvious because Neal's technique of aggregating more devices onto the PCI bus itself only increases the power consumption of the resulting system. Further, Neal's technique would not reduce the power consumption on the PCI bus itself, since the parasitic capacitance is not a major concern in relatively slow and narrow buses such as the PCI bus. Thus, the combination proposed by the Office Action would destroy the power saving purpose behind the system disclosed by Wertheim. Therefore the conclusion of obviousness is in error.

According, claims 64, 65, and 110 are believed to be allowable over the prior art of record. Depending claims 66-90 are also believed to be allowable for at least the same reason as claim 65.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Dated: August 19, 2004

Respectfully submitted,

By_____

Thomas J. D'Amico
   Registration No.: 28,371
Christopher S. Chow
   Registration No.: 46,493
DICKSTEIN SHAPIRO MORIN &
   OSHINSKY LLP
2101 L Street NW
Washington, DC 20037-1526
(202) 785-9700
Attorneys for Applicant